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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,366

10/07/2005

Dietmar Pennig

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05/04/2007

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EXAMINER

WOODALL, NICHOLAS W

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,366

Applicant(s)

PENNING, DIETMAR

Examiner

Nicholas Woodall

Art Unit

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment received on 02/09/2007.

Drawings

2. The drawings were received on 02/09/2007. These drawings are acceptable.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the European Patent Office on 09/03/2002. It is noted, however, that applicant has not filed a certified copy of the European application number EP20020019637 as required by 35 U.S.C. 119(b). The examiner notes that the applicant is in the process of retrieving and filing this document.

Double Patenting

4. The examiner would like to note that the applicant has filed a terminal disclaimer to overcome the double patenting rejection set forth in the previous office action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halloran (U.S. 3,709,218) in view of Leu (U.S. 6,270,499).

Halloran discloses a system comprising an intramedullary fixation element (20) and screws (27). The screw (27) comprises a screw head and a screw body with a

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constant pitch and a thread diameter smaller than the diameter of the holes (25) located in the intramedullary fixation element (20). The intramedullary fixation element (20) includes at least one proximally transverse hole (25) that comprises opposite holes located on opposite sides of the intramedullary fixation element (20). Halloran further discloses a system that also includes an intermediate plate element (28; claim 5). Halloran discloses that the intermediate plate element (28) has a curved surface to adhere better to the bone surface (claim 6). Halloran further discloses a system with a second intermediate plate element for use with a second screw (claim 14). Halloran discloses the claimed invention except for the hole (25) comprises an internally partially threaded portion that is capable of engaging the screw in at least a crest-to-crest fashion. Leu teaches an intramedullary fixation element that comprises a proximally transverse hole that has an internal thread in order to accurately position the intramedullary fixation element in the intramedullary space of a bone (column 3 lines 53-56). It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the plate of Halloran with internally partially threaded bores in view of Leu in order to accurately position the intramedullary fixation element in the intramedullary space of a bone. The examiner is interpreting the threaded holes of Leu to be partially threaded because the pitch of the threads could be increased to add a higher thread count in the bore. Therefore, in the broadest sense of the word "partially", the threaded holes of Leu are partially threaded, since the threads of the bore could include a higher thread pitch. Claim 2 only requires that the part of the bore near the screw head includes the partially threaded portion, but does not require

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the opposite side of the bore to be unthreaded. Therefore, the combination of Halloran and Leu disclose a bore with an internal partially threaded bore wherein the part of the bore closer to the screw head includes internal partially threaded portion.

Regarding claim 3, Halloran in combination with Leu discloses the claimed invention except for screw body has a constant pitch and comprises threads with a triangular cross-section. It would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the threads of the screw body with a triangular cross-section, since applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or configurations a person ordinary skill in the art would find obvious for the purpose of providing a thread with a triangular cross-section. In re Dailey and Eilers, 149 USPQ 47 (1966).

Regarding claim 4, Halloran in combination with Leu discloses the invention as claimed except for the triangular cross-section of the threads having a cusp or acute angle of sixty degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the threads with a triangular cross-section having a cusp or acute angle of sixty degrees, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 15, Halloran in view of Leu discloses the invention as claimed except for the second intermediate plate element is larger than the first intermediate plate element. It would have been an obvious matter of design choice to create the

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second intermediate plate element larger than the first intermediate plate element, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

7. Claims 7-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halloran (U.S. 3,709,218) in view of Leu (U.S. 6,270,499) in further view of Niiranen (U.S. 6,692,498).

The combination of Halloran and Leu discloses the invention as claimed except for the intermediate plate element comprises a couple of arm portions (claim 7), that the arm portions have rounded ends (claim 8), the intermediate plate having an enlarged portion having at least one seat (claim 9), wherein the seat is at least a hole formed in the enlarged portion of the intermediate plate element (claim 10), wherein the seat is at least a hole formed in at least one of the arm portions of the intermediate plate element (claim 11), wherein the intermediate plate element has a substantially rounded profile (claim 12), wherein the intermediate plate element is an open washer integrally formed with a flange portion (claim 13), and a system with a second intermediate plate element that comprises a couple of elongated arm portions (claim 16). Niiranen teaches an intermediate plate element that can be manufactured to any number of forms and sizes desired in order to best utilize the plate for the desired use of the plate (column 9 lines 23-50; claims 7, 8, 12, and 16). Niiranen shows a Y-shaped plate that has elongated arms inherently able to be placed astride a screw and has an elongated portion. The arms of the plate are shown to be substantially rounded. Niiranen also teaches that the

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intermediate plate element may contain a plurality of holes in order to pass fasteners through the plate (column 9 lines 37-39); claims 9-12). It would have been obvious to one having ordinary skill in the art at the time of the invention to manufacture the system of Halloran as modified by Leu with the shapes and holes from the plates of Niiranen in order to best utilize the plate for the desired use and to allow the passage of fasteners through the plate.

Response to Arguments

8. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection. The examiner has included new grounds of rejection for claims 2 and 13, but the applicant has amended independent claim 1 and therefore necessitated the new grounds of rejection. Regarding claim 1, the examiner is interpreting "internal partially threaded portion" to mean that the threads in the bore could have a higher thread pitch and therefore a higher thread count. Since the bore could have more threads the bore is only partially threaded. Furthermore, the added limitation of the bore being capable of engaging the screw in at least a crest to crest fashion only requires the screw be capable of at least engaging the screw in a crest to crest to crest fashion. The screws in the combination are capable of being fully engaged with the threads in the bores and are therefore capable of at least a crest-to-crest engagement. Regarding claim 2, the claim requires that a portion of the bore nearest the screw head includes the internal partial thread, but the claim does not require the other portions of the bore to be unthreaded. Therefore, the examiner believes the combination of Halloran and Leu meet the limitations of claim 2, since the

portion of the bore nearest the screw head does include an internal partial thread. Regarding applicant's argument that Niiranen has little in common with the claimed invention is not persuasive. Niiranen shows a plate element that is capable of being manufactured in numerous shapes and configurations, which is the idea the examiner is teaching from the reference. Therefore, the teaching of Niiranen to manufacture a plate in numerous shapes and configurations is relevant to the claimed invention. Regarding applicant's argument that Niiranen teaches a Y-shaped plate element with a V-shaped seat teaches away from sliding a plate under the already inserted screw is not persuasive, since the limitations the applicant relies on, i.e. the plate sliding under the inserted screw, are not presented in the claims. Therefore, it is irrelevant if the reference contains them or not. Regarding the applicant's argument that the Y-shaped plate of Niiranen cannot permit the stable insertion of a screw in multiple directions is not persuasive. First, the Y-shaped configuration taught by Niiranen is only one possible configuration that is taught that reads upon the claim limitations of the current application. The examiner believes the reference teaches further configurations, such as a C-shaped plate or a U-shaped plate, which would also read upon the claim limitations of the current application. Furthermore, if the plates were configured as C-shaped or U-shaped plates the plates would be considered open washers and meet the structural limitations of claim 13.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Woodall whose telephone number is 571-272-5204. The examiner can normally be reached on Monday to Friday 8:00 to 5:30 EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NWW



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SUPERVISORY PATENT EXAMINER